

Sage Notes



... promoting interest in
Idaho's native flora.

Spring 2009 ❖ SAGE NOTES ❖ A Publication of the Idaho Native Plant Society Vol. 31 (1)

Macrofungi of the South Hills, Idaho

Education, Research, and Inventory Grant Report

By Dylan Levy-Boyd

Introduction

Fungi are at times marvelous and beautiful, at other times tasty, regularly disgusting, and always mysterious. Fungi can be ever present or elusive, be it the curiously grotesque purplish black infections of corn caused by the smut *Ustilago maydis* (a delicacy, really!), or the pink gum drop flavored elixir laced with penicillin that can pick you up off the bed and cure you of the snuffly zombie hex, or the clucky hen of the woods (*Grifola frondosa*) that still eludes the clutches of your (my) foxy foray basket. In sum, fungi are an incredibly diverse group of organisms that cause those who speak of them to drool in superlatives and digress into contradictions. Fungi are nature's decomposers, nutrient recyclers and soil builders. Carbon cycling, and by extension climate change, are inextricably linked to fungi through the sequestration of carbon in mycelia and the breakdown of organic matter into the greenhouse gas CO₂. Fungi are the poster children of mutualisms (e.g. lichens, mycorrhizae) and the bane of agriculturists for causing more than 70% of crop diseases. The mimetic transformations of the parasitic rust *Puccinia monoica* on members of the genus *Arabis* are elegant if not nefarious. The implication of *Chytrid* fungus in the worldwide decline of amphibians is alarming. To humans fungi are at once food, medicine and poison. If this effusiveness makes fungi seem overwhelming, it's because they often are.

Being an expert in mushrooms is very difficult and requires a lot of time keying and sitting behind a microscope. However, learning a little about mushrooms is within all our abilities. Even being able to recognize a few common species opens the door for all kinds of fun. Certainly, foraging for mushrooms is a popular means of recreation. Being able to identify species is the only way to ensure that this pastime stays fun. Beyond consumption, learning more about mushrooms broadens our understanding of the world we live in. The aim of this project was to make fungi, mushrooms in particular, more familiar to Idaho's savvy botanical champions, and show how a simple study can positively influence conservation practice and enrich our understanding of Nature's wonders.

Idaho has a rich heritage of fungi inclined folk. The first annual foray of what is now the North American Mycological Association (NAMA) was held in McCall, Idaho in 1976 (see the Southern Idaho Mycological Association for a history of this foray and more information on mushrooms in Idaho www.simykos.org/Index.htm).

.....Continued on page 4

In this Issue

<i>Macrofungi of the South Hills</i>	1
<i>Letter from the President</i>	2
<i>Renewal Reminder</i>	2
<i>INPS Rare Plant Conference</i>	3
<i>New ERIG Grant Opportunities</i>	7
<i>INPS 2009 Officer Candidates</i>	8
<i>2009 INPS Annual Meeting</i>	
<i>Registration Form</i>	9
<i>Native Plants News</i>	11
<i>Chapter News</i>	13

Sage Notes is in color on the INPS website:
<http://www.idahonativeplants.org/>

{ Articles contributed to *Sage Notes* reflect the views of the authors and are not an official position of the Idaho Native Plant Society }

Letter from the President

Dear INPS Members,

Enclosed within this issue is information about the proposed new officers for the coming year. The nominating committee has done a very commendable job of completing the task of bringing to you, the members, a terrific slate of officers. Now it is time for you, as members, to do your part by filling out the ballot and mailing it. This is a very simple matter, but very important to the Society.

There will be a new INPS President this coming year. He/she will bring a different perspective to the presidency. Also he/she will be looking for people to fill committees. At the risk of using an overworked phrase, Change is Good. I am certain that the INPS membership will support the new president and make his/her job as easy as possible.

Native Plant Appreciation Week is scheduled for April 26 to May 2, 2009. This is a special time to have activities that introduce newcomers to the specialness of native plants. Each chapter should have at least one activity during this time. Go to your chapter's activities and take a friend. This is the way INPS can grow.

Sah-Wah-Be Chapter is hosting the annual meeting on June 26-27. If you do not have this marked on your calendar, put a big circle around that date and plan to attend. This is a chance to meet and become acquainted with other INPS members from around the state. (See announcement in this issue.) White Pine Chapter will be hosting the 2010 annual meeting.

Once again, circle the dates June 26-27 for the annual meeting then make your reservation to attend. Remember, this is your meeting. The campground is paid for by your dues. Island Park is a very special place. This is a place to bring your entire family.

See you at the annual meeting.

Cheers!

Janet E. Benoît, INPS President

Renew Your INPS Membership for 2009

Dues are: Patron \$100, Sustaining \$35, Individual \$17, Household \$22, Student \$10, Senior Citizen \$10.

A renewal form can be found on the back cover of this newsletter, or online at <http://www.idahonativeplants.org/>.



Lyophyllum montanum, is a common spring mushroom found near snowbanks. Photographed 5/25/2008 by Dylan Levy-Boyd in the South Hills, Idaho.



Russulas are mycorrhizal fungi that associate with a slew of hosts. There are upwards of 200 species of *Russulas* in North America. Identifying them beyond genus is usually quite difficult based on morphological traits alone. Photo 8/13/2008.

24th IDAHO RARE PLANT CONFERENCE, 2009 – The Theme is Success Stories

Feb. 11 and 12, 2009, at Idaho Power, 1221 West Idaho Street, Boise.

Registration materials are posted online at

www.idahonativeplants.org

Agenda

Tuesday, Feb 10

3:30 pm – 5:30 pm: INPS board meeting—MK Nature Center, 600 S Walnut St.

6:30 pm – 8:30 pm: social (no-host food & drinks)—Red Feather Lounge, 246 N 8th St.

Wednesday, Feb 11

8:00 am – 8:30 am: registration, poster set-up—Idaho Power, 1221 W Idaho St.

8:30 am – 5:00 pm: welcome, species updates, posters—Idaho Power, 1221 W Idaho St.

6:00 pm – 9:00 pm: banquet, Del Wiens' presentation—Old Spaghetti Factory, 610 W Idaho St.

Thursday, Feb 12

8:00 am – 8:30 am: second day registration, poster set-up—Idaho Power, 1221 W Idaho St.

8:30 am – 5:00 pm: presentations, posters, closing—Idaho Power, 1221 W Idaho St.

5:15 pm – 6:45 pm: dinner (no-host)—Table Rock Brew Pub & Grill, 705 Fulton St.

7:00 pm – 9:00 pm: Polygonaceae keying workshop—Rm. 248, Science & Nursing, BSU

What is the Idaho Rare Plant Conference?

The Idaho Rare Plant Conference is a gathering of professional and lay botanists, native plant devotees, and wildflower enthusiasts from across Idaho. It is sponsored by the Pahove Chapter of the Idaho Native Plant Society, and held every two years in Boise. The conference is a chance to meet others with similar interests. Many of the attendees and speakers are government employees, academicians, or private consultants, while some are members of the general public. Attendees have ample time for networking and discussions—at the Tuesday evening social, Wednesday evening banquet, and meals and breaks throughout the two days of presentations. They can also display posters of their work related to native plants. The first full day of the meeting is devoted to evaluating the rare species list and rankings maintained by the Idaho Native Plant Society. Though INPS tracks over 400 species, only a subset of these are covered at the conference, based on abstracts submitted prior to the conference. Using recent data and range maps, attendees discuss species in need of rank changes, new species that may be added to the list, or listed species now known to

be too common to warrant listing. The second day of the conference features presentations and workshops related to the theme of the conference. Past themes have included invasive species, pollinators, natural communities, and Palouse Prairie. For 2009, our theme is “Success Stories”—so join us to learn from others who have had special successes in native and rare plant conservation!

Banquet

Our keynote speaker will be Del Wiens who has conducted plant research in Sri Lanka, Madagascar, Honduras, and many other exotic places around the globe. His presentation is “Plant Associations of Africa.” Guests welcome. \$14 per person, **must be reserved by Feb 5.**

Posters

Indicate poster title (or subject) on your registration form. Posters can be set up at Idaho Power starting Wed, 8:00 a.m.

Species Update Discussion

Submit abstracts for species updates at www.idahonativeplants.org by **Feb 2.**

Submit any electronic visual aids to Beth Colket ([bcolket at idfg dot idaho dot gov](mailto:bcolket@idfg.idaho.gov)) by **Feb 9.**

Idaho Native Plant Society fundraiser

Steel water bottles with the INPS logo will be available at the conference

Parking

Red Feather Lounge, Old Spaghetti Factory, Table Rock: Street meters are free after 6 p.m., and for 20 minutes before that if you push the '20 minutes free' button.

Parking garage is free for the first hour, then \$2.50 for each additional hour. Keep carpooling in mind.

Idaho Power: No parking in the Idaho Power lot, except on Wednesday after 5 p.m. for those who want to walk or carpool ~1/2 mile to the banquet. Some free street parking on Idaho Street west of the Idaho Power Building, and on 14th and 15th Streets.

Boise State: Within walking distance of Table Rock. On campus, the parking garage is on University Street, between Brady and Earle Streets. Remember your parking space number, then pay at the machine downstairs. \$1/hr.

Lodging Alert!!

If you're coming to the Rare Plant Conference from out-of-town, make lodging arrangements ASAP. The conference is scheduled on the same dates as the Special Olympics in Boise, so most hotel rooms are already booked.

Hundreds of species of mushrooms are known to Idaho and many unique species have been collected in all parts of the state. For example, extensive searches of the Owyhees by Ellen Trueblood, one of Idaho's earliest champions of mycology, revealed a unique mushroom flora with many rare species (Wicklow-Howard and J. Kaltenecker 1994). Despite the long lists of species and extended history of forays in the McCall area, it seems that relatively little is known about the occurrence of mushrooms across most of Idaho, especially the southern regions.

To the casual observer, fungi often exist as reclusive members of the ecological community. However, the persistent part of the fungal organism, the mycelial network, exists in close association with its nutrient source, be it plant roots, detritus, dung, or dead or decaying wood. In nature, fungi live in and on their food source. Given that many of these sources are imbedded in soil or wood, it is difficult to detect the presence of a fungus unless it is fruiting. The fruiting body of the fungal organism is called the sporocarp. Large fleshy sporocarps that are visible to humans are generally referred to as mushrooms or macrofungi. In other words, seeing a mushroom is merely the observation of a fruiting event. For a given species of mushroom, sporocarp production is closely tied to climactic and environmental conditions. Knowing when, where, and why mushrooms are in fruit is one of the many mysteries of mushrooms. Generally, the unpredictability of detecting a mushroom through fruiting makes them poor bio-indicators. However, it is very important to be able to identify and document fungi when they do appear because it can give great insight into the ecology of the ecosystem and/or make a delectable snack.

The Cassia Division of the Sawtooth National Forest is better known as the South Hills. This area is bit off the beaten path, but to those who live nearby a trip to the South Hills is a splendid getaway. Bordering the southern edge of the Snake River Plain in south central Idaho the National Audubon Society describes the South Hills as follows:

The South Hills consist of a mountain range dominated by a long north-south ridge called Deadline Ridge. Several perennial streams flow off the South Hills, including Rock Creek, Shoshone creek, Trapper Creek, and Cottonwood Creek. Many creeks flow in deep canyons. Sagebrush-steppe yields to mountain shrub communities as one rises in elevation. Large patches of aspen, lodgepole pine, subalpine fir, juniper, and mountain mahogany exist in the area. This site is important for its high diversity of landbirds, presence of species of special concern in Idaho, and exceptional representation of natural habitat.

Although the South Hills are geologically related to the Owyhees, floristic affinities are apparently stronger to the east. *Astragalus anserinus* (Goose Creek milkvetch) and *Penstemon idahoensis* (Idaho penstemon) are endemic plant species.

Methods

In an effort to document the occurrence of mushrooms (macrofungi), 10 field excursions were made between May 1, 2008 and November 1, 2008 to the South Hills. Trips were made opportunistically to take advantage of changes in weather conditions such as precipitation and drops in temperature. One or two areas were surveyed per outing. Each unique mushroom type was photographed, described in-field using the species description forms, and identified using the Pacific Northwest Key Council keys (2007), David Arora's Mushrooms Demystified (1986), and Roger Phillips' Mushrooms of North America (1991). None of the identifications were verified by a trained mycologist. Cryptic, degraded, and/or notoriously difficult groups of fungi were identified to genus or recorded as present but 'unknown.' The trophic category saprobic (survive by decomposing dead or decaying organic material), mycorrhizal, or parasitic of each mushroom was determined from the literature.

Results

In 2008, 39 species of mushrooms were documented in the South Hills (Table 1). Of the 39 fungi, 32 were identified to genus, and 17 to species. This included 24 Agaricales (gilled fungi), five members of the Boletaceae (tube fungi), four members of the Polyporaceae (polypore fungi), three Ascomycetes, two Tremellales (jelly fungi), and one Gastromycete (puffball).

The greatest number of mushroom species found on one day was 12, on August 13, 2008 (Figure 1). Eleven species were found on August 24, 2008 and nine species were found on May 25, 2008. No more than five species were found on any other survey.

Table 1. Macrofungi species recorded in the South Hills, Idaho, 2008

Species	Date(s) Found	Location(s)	Trophic Association/Ecology
<i>Agaricus sp.</i>	8/13/2008	Wahlstrom Hollow	Saprobic
<i>Amanita muscaria</i> var. <i>alba</i>	8/24/2008	Porcupine Springs	Mycorrhizal
<i>Amanita sp.</i> (tentatively <i>A. vaginita</i>)	8/13/2008	Petit Campground Wahlstrom Hollow	Mycorrhizal
<i>Auricularia aurea</i>	5/25/2008	Petit Campground	Saprobic
<i>Boletus sp.</i>	7/20/2008	Petit Campground	Mycorrhizal
<i>Boletus sp.</i>	8/13/2008	Petit Campground	Mycorrhizal
<i>Boletus sp.</i>	8/13/2008	Wahlstrom Hollow	Mycorrhizal
<i>Chroogomphus vinicolor</i>	8/13/2008 8/24/2008	Wahlstrom Hollow Porcupine Springs	Mycorrhizal
<i>Clitocybe albirhiza</i>	5/25/2008	Petit Campground	Saprobic
<i>Cortinarius sp.</i>	6/22/2008	Petit Campground	Mycorrhizal
<i>Cortinarius sp.</i>	8/13/2008	Petit Campground	Mycorrhizal
<i>Cortinarius sp.</i>	8/24/2008	Porcupine Springs	Mycorrhizal
<i>Cryptoporus volvatus</i>	5/25/2008	Wahlstrom Hollow	Parasitic
<i>Discina perlata</i>	5/25/2008	Wahlstrom Hollow	Saprobic
<i>Flamulina velutipes</i>	5/25/2008 10/12/2008	Petit Campground	Saprobic
<i>Heterotextus alpinus</i>	5/25/2008	Petit Campground	Saprobic
<i>Leccinum insigne</i> group	8/24/2008	Porcupine Springs	Mycorrhizal
<i>Lycoperdon marginatum</i>	8/13/2008	Wahlstrom Hollow	Saprobic
<i>Lyophyllum montanum</i>	5/25/2008	Petit Campground	Saprobic
<i>Morchella sp.</i> (<i>M. elata</i> group)	6/22/2008	Petit Campground	Saprobic/Mycorrhizal
<i>Pholiota squarrosoides</i>	8/24/2008	Porcupine Springs	Saprobic
<i>Pleurotus ostreatus</i>	8/24/2008	Porcupine Springs	Saprobic
<i>Polyporus elegans</i>	7/20/2008 10/12/2008	Petit Campground	Saprobic
<i>Polyporus squamosus</i>	7/20/2008	Petit Campground	Saprobic
<i>Russula sp.</i>	8/13/2008	Petit Campground	Mycorrhizal
<i>Russula sp.</i>	8/13/2008	Petit Campground	Mycorrhizal
<i>Russula sp.</i>	8/13/2008	Wahlstrom Hollow	Mycorrhizal
<i>Russula sp.</i>	8/24/2008	Porcupine Springs	Mycorrhizal
<i>Russula sp.</i>	8/24/2008	Porcupine Springs	Mycorrhizal
<i>Russula sp.</i> (tentatively <i>R. cyanxantha</i>)	8/13/2008	Petit Campground	Mycorrhizal
<i>Suillus tomentosus</i>	8/13/2008 8/24/2008	Wahlstrom Hollow Porcupine Springs	Mycorrhizal
<i>Tricholoma vernaticum</i>	6/22/2008	Petit Campground	Mycorrhizal
Unknown (ascomycete on fir cone)	5/25/2008	Petit Campground	Saprobic
Unknown (clitocyboid mushroom)	6/22/2008	Petit Campground	Saprobic
Unknown (clustered agarics growing on conifer bark)	10/12/2008	Petit Campground	Saprobic
Unknown (grey capped agaric on wood)	8/24/2008	Porcupine Springs	Saprobic
Unknown (LBM w/ widely spaced gills)	5/25/2008	Wahlstrom Hollow	Unknown
Unknown (orange Polypore on stump)	7/20/2008 8/24/2008	Petit Campground Porcupine Springs	Saprobic
Unknown (velvet capped agaric)	7/20/2008	Petit Campground	Unknown

No mushrooms were found on four of the survey dates, May 1, 2008, September 27, 2008, October 5, 2008 and November 1, 2008. Of the mushroom species found 18 were mycorrhizal and 17 were saprobes. *Cryptoporus volvatus* was the only parasitic fungi found. The trophic category for two of the gilled agarics was not assigned because they were not keyed to genus.

Discussion

The species documented in the South Hills in 2008 gives a snapshot of the fungal diversity in southern Idaho. Thirty-nine species is relatively few when compared to the 100+ species that can be found during fall forays in the forests around McCall, Idaho. While fungi form mutualistic associations with 90-95% of all terrestrial plants, macrofungi most commonly associate with trees. Given that the McCall area has a wetter climate and more contiguous and diverse forests than the sky islands of southern Idaho, it is expected that diversity numbers in the South Hills will not be as high as the northern forests. Still, if the South Hills produce a species accumulation curve similar to other regions across North America and Europe then the number of species in the South Hills is expected to increase each year that surveys are made.

The greatest fungal diversity was found in the late spring when snow patches were still present on shady northeasterly aspects, and in August when summer thunderstorms were occurring at higher elevations. Climate data are available for Oakley, ID and other towns around the base of the South Hills. However, this data is not representative of the study area. Thus, it is not possible to infer how precipitation or temperature may have influenced August fruiting patterns. It was surprising that no fungi were found on September 27 or October 5, as many fungi are known to fruit in the fall. From May to November there were roughly an equal number of mycorrhizal and saprobic species identified. Interestingly, there was a discernable shift in the trophic make-up of fungi from spring to late summer, and from late summer to fall. In May only saprobic fungi were evident. On August 13 the proportion of mycorrhizal fungi to saprobic fungi was 5:1. In late fall, again, only saprobic fungi were found.

The data and observations from this study are a starting place for fungi investigations in the South Hills. Learning more about the common and uncommon species, where and when mushrooms fruit, and how fungal populations change between communities and land management areas is important. It allows for creation of field guides or citizen science projects like Australia's FungiMap http://www.rbg.vic.gov.au/fungimap/_welcome/. It creates opportunities for broader participation from the public and gives land managers better tools for evaluating complex systems. And finally, to the native plant enthusiasts of Idaho it presents more options for connecting with the natural world. From your garden to your favorite trail, fungi are waiting to wow you, baffle you, and hopefully keep you coming back for more.

****Some of the mushrooms discussed in this article are edible, others could kill you dead. Great care must be taken to accurately identify any wild mushroom you plan to consume. Remember, "there are old mushroom eaters and bold mushrooms eaters, but few old-bold mushroom eaters." Visit the Southern Idaho Mycological Association web site <http://www.simykos.org/Index.htm> for information on mushroom identification and foray opportunities in Idaho.****

About the author: Dylan plans, monitors and manages native restoration projects for CSR, Inc. When possible he works on his master's degree in conservation biology from Prescott College. Dylan is member of the Loasa chapter of the INPS. Even though Dylan has served as editor of this newsletter since 2007, this is his first article. For a full version of the ERIG report, including photos and citations contact Dylan at 208.423.4835, or dylan@csr-inc.com.

2008 Mushroom Occurrence in the South Hills, Idaho

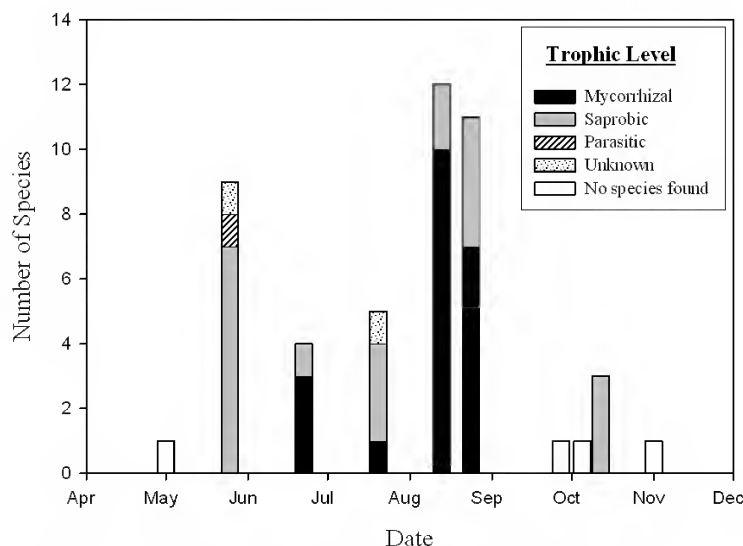


Figure 1. Macrofungi found in the South Hills, Idaho during ten surveys made between May 1, 2008 and November 1, 2008.

Announcement for 2009 Education, Research, and Inventory Grant Proposals

The Idaho Native Plant Society (INPS) is soliciting proposals for its Education, Research, and Inventory Grant (ERIG) program. Grants of up to \$1,000 will be awarded in 2009 to support projects that contribute to the appreciation, conservation, or knowledge of Idaho's native flora or vegetation. The purpose of the ERIG program is to stimulate and lend support to educational, research, and conservation activities that promote an appreciation for native plants and plant communities in Idaho. The ERIG committee encourages you to submit a proposal if you have a project that may qualify. The deadline for submitting proposals is March 15, 2009.

Grant guidelines – The ERIG program is intended to support direct project costs. Grant proposals should not include expenses for salary and personal benefits, the purchase of personal equipment, or other expenses not essential to the project. Here are some examples of costs the grant may cover:

- Direct costs of travel, meals, and lodging for the project.
- Supply and service expenses used for the sole purpose of the project (e.g., film, photocopying, phone, lab materials).
- Printing costs for public outreach material or research publications.

Application procedure and requirements – Proposals should contain the following information:

- Project title.
- Contact information - name, address, phone number, organization/affiliation, and email (if available).
- Project description – outline the project objectives, methods, and final product. Explain how the project will benefit the appreciation, conservation, or knowledge of Idaho's native flora or vegetation. Describe how project success will be evaluated.
- Itemized budget – outline an overall project budget, including the amount you are requesting (up to \$1,000), as well as other funding sources.
- Timeline – please provide a time line for completion of all major tasks associated with the project, including presentation of the results.

Project proposals must pertain to native plants of Idaho. The total amount of money available for the ERIG program in 2009 still needs to be determined. Please limit grant requests to a maximum of \$1,000, and be aware that less may be rewarded due to INPS budget constraints. Successful applicants will be required to submit a final report to the INPS documenting project accomplishments and a summary of the project to be published in the INPS newsletter, *Sage Notes*. We encourage applicants to become an INPS member if they are not already so, however, membership is not a prerequisite to apply for, or receive an ERIG.

Please submit proposals by email to Michael Mancuso at [mmancuso at cablone dot net](mailto:mmancuso@cablone.net) or by post to: Idaho Native Plant Society, ERIG Committee Chair, P.O. Box 9451, Boise, ID 83707.

Southwest Rare Plant Conference

The Utah Native Plant Society is now accepting abstracts for the next Southwest Rare Plant Conference. The event, entitled "Changing Landscapes in the Southwest" will be held on the University of Utah campus in Salt Lake City March 16-20, 2009. Topics include rare plant biology and biogeography, plant community and ecological restoration, climate change issues and others. Format will include posters, oral presentations and special topic break out sessions. Dr. Noel Holmgren of the New York Botanical Garden and co-author of the *Intermountain Flora* will be the conference keynote speaker. To submit an abstract, register or learn more about the conference, go to the UNPS home page (www.UNPS.org) and click the link to the SW Rare Plant Conference. Please consider attending the conference, submitting an abstract or passing word along to friends, students and colleagues.

INPS Officer Candidates for 2009

The Nominating Committee offers the following list of candidates for state office. The ballot is provided on page 9. While the most recent polls indicate that each candidate has above average chances of carrying their respective races, please take a brief moment to vote and submit your ballot.

Candidates' Résumés

President: Wendy Velman

Wendy Velman lives in Iona, Idaho with Kurt (husband of 11 years) and two active, nature loving sons, John (5) and Neal (2). She developed a love for the plants of the sagebrush steppe as a senior in high school. She joined INPS in 1995 while in college and still remains an active member, leading field trips for the Sah-Wah-Be chapter. Graduating from Idaho State University in 1999 with a Bachelor Degree in Botany, Wendy began a career as a Botanist for the Bureau of Land Management. She has worked the last 9-1/2 years all over Idaho, currently at the Botanist for the BLM Upper Snake Field Office in Idaho Falls. She has served as the Vice President (2002) and the President (2003) of the Sah-Wah-Be Chapter. Her passion is education of the public to the importance of the native plants, lichens & mosses, and pollinators of the amazing sagebrush steppe ecosystem. Her goal for the INPS is to help educate the public in general to the importance of all native plants and their associates that make up the Great State of Idaho. Oh... and it is also said that she has a great smile.

Vice President: Janet Bala

Janet Bala has lived in Pocatello, Idaho, for the past 10 years with her husband and black lab. Since earning her Master's in biology from Idaho State University in 2007, Janet has been an assistant lecturer in the Department of Biological Sciences where she teaches Native Flora of Idaho and Introductory Biology. She has been an active member of the Sah-Wah-Be Chapter serving as treasurer and most recently as President for 5 years. She was elected Vice President of the State Board for INPS in 2008. Janet enjoys hiking, skiing and whitewater rafting.

Secretary: Nancy Miller

Nancy Miller has been an active member of the White Pine Chapter, serving first as chapter newsletter editor, and now as co-president and website editor. Nancy and her husband Reid live on the north side of Moscow Mountain near Viola Idaho where they enjoy birding, watching and photographing wildlife, vegetable and fruit gardening as well as cultivating ornamental flowers. Their property has native forbs, shrubs and trees and they are now engaged in expanding the native forb populations. Nancy graduated from University of California Berkeley in the Teaching of Mathematics and has taken additional coursework in Computer Science and Horticulture. She recently retired after working a number of years in Information Technology first at University of Wyoming and the last 22 years at WSU. She particularly enjoys traveling and living for short periods in foreign countries – especially those such as New Zealand and Australia which still have many native birds and wildflowers to study.

Treasurer: Jody Hull

Jody Hull has been an active member of the Pahove Chapter since 1995, currently serving as chapter treasurer. She lives in Boise with her husband Jim and cats Zumi and TinyCat. She graduated in May 2008 from Boise State University with a bachelor's degree in Environmental Studies. Her first bachelor's degree was from Weber State University in Geography with minors in Botany and Zoology. Jody enjoys wildflower walks, traveling, photography, gardening, computers, and volunteering with various organizations.

INPS 2009 STATE BOARD OF DIRECTORS ELECTION BALLOT

New Officers will be announced at the Annual INPS State Field Trip and Meeting
in Island Park at the Buffalo Campground June 26-28, 2009

Please detach, complete, and mail the self-addressed ballot by **May 10, 2009**

NOMINEES

Please vote for one nominee in each category (check name or write in name):

President: Wendy Velman _____ Other (write in name) _____

Vice-President: Janet Bala _____ Other (write in name) _____

Secretary: Nancy Miller _____ Other (write in name) _____

Treasurer: Jody Hull _____ Other (write in name) _____

----- Please cut here and mail this reservation form -----
See page 11 for a details regarding the 2009 INPS Annual Meeting

2009 INPS ANNUAL MEETING RESERVATION FORM

Please mail this form with your check for the dinner (\$16 per person made out to Sah-Wah-Be Chapter, INPS) **asap** to: **Barbara Nicholls, 9440 West Caribou Road, Pocatello, Idaho – 83204**

PLEASE PRINT

Name(s) _____

Mailing address _____

Phone(s) _____ Email Address _____

Chapter affiliation _____ Non-member _____

Please check what you will need: Space to park an RV _____ Length _____

Tentsite for one tent _____ For 2 tents or more _____ How many? _____

For which nights _____

Are you interested in Friday's Harriman Park guided tour? _____

Are you interested in Sunday's Float? _____ Will you be bringing your own boat? _____

Number of Saturday dinner reservations @ \$16.00 _____ Total enclosed _____

Idaho Native Plant Society
PO Box 9451
Boise, ID 83707

Requires
First Class
Postage

Idaho Native Plant Society
Elections Committee
PO Box 9451
Boise, ID 83707

-----Fold Here-----

Do Not Staple

Tape Here to seal

Tape Here to seal

-----Cut Line-----

Backside of 2009 INPS Annual Meeting Registration Form
Mail to:
Barbara Nicholls, 9440 West Caribou Road, Pocatello, Idaho – 83204

2009 IDAHO NATIVE PLANT SOCIETY ANNUAL STATE GATHERING / MEETING JUNE 26-28, BUFFALO CAMPGROUND, ISLAND PARK, IDAHO

You are invited to this summer's 2009 INPS Annual State Gathering / Meeting. This gathering will offer native plant field trips to famous and historic sites, the State Annual Meeting, a catered dinner, a speaker, and an opportunity to socialize with native plant enthusiasts from throughout the state. This event will be hosted by the Sah-Wah-Be chapter of SE Idaho. If you have questions, please phone 208-233-0714.

(You may want to make this weekend part of a longer trip, as the campground is only 30 minutes from the West Entrance to Yellowstone National Park, a world-famous geothermal area. Teton National Park and Jackson Hole are also nearby.)

When: Friday, Saturday, and Sunday, June 26, 27, and 28, 2009.

Where: Buffalo Group Campground, Island Park, ID. Friday and Saturday campsite fees will be paid by INPS. The campsite has also been reserved for Sunday night for those who wish to stay longer and share the nominal fee for that night's camping. For those who might prefer not to camp, there are motels and other accommodations available in Island Park. The Internet is an invaluable resource for finding motels in the area.

FRIDAY, JUNE 26:

After settling in, we invite you on a guided tour of Harriman State Park. Participants will leave together from the group campsite at 4 pm. Dinner is on your own but join us later for socializing by the campfire.

SATURDAY, JUNE 27, FIELD TRIPS:

Wendy Velman, BLM Botanist and nominee for president of INPS, will lead a field trip to the fen habitat surrounding the famous Henry's Lake. There are many native wetland species as well as rare plants to see. Other field trip options include the beautiful Mesa Falls, historic Harriman State Park, and possibly Sawtelle Peak. All field trip sites are located 30 minutes or less from our campsite.

SATURDAY, JUNE 27, EVENING EVENTS:

The State Annual Meeting will follow a catered dinner. This meeting will include the election of 2009-2010 state officers plus deal with important issues of our organization. After this, our featured speaker will be Jennifer Whipple, Yellowstone National Park Botanist. She will speak about the flora of the area including its rare plants. While Yellowstone's flora is generally typical of the Central Rocky Mountains, the geothermal systems found in the Park add an unusual component to the vegetation found in that area.

SUNDAY, JUNE 28:

An optional 2-3 hour Big Springs Float Trip will be led by Ruth Moorhead. Ruth has led this float many previous summers as a class leader for the Sawtooth Institute. Ruth is very knowledgeable about plants and birds. Bring your canoe, kayak, or raft, or rent from Mack's Inn. There will be no boating instruction, but this is a Class 1 Easy Float.

*******If you plan on attending please fill out and return the registration form found on page 9*******

Native Plants News

Learn it! Plant Identification Workshops

Dr. Jim Smith of the Department of Biological Sciences at Boise State University would like to invite the public to workshops oriented toward identifying the material that was collected on the first Idaho Botanical Foray to Mt. Harrison on August 7-10, 2008. These workshops are an opportunity to learn and practice keying as well as a chance for those that missed the foray to see what occurs on Mt. Harrison. Meet in room 248, second floor of the Science & Nursing building on the BSU campus (between the Morrison Center and the tallest building on campus).

Classes are from 7:00pm -9:00pm

February 12, 2009: buckwheats (Polygonaceae)

March 12, 2009: miscellaneous families

Correction - The captions in the article on Idaho *Juncus* by Peter Zika in the last issue of Sage Notes 30(4) were mislabeled. Here are the correct identifications:

Fig 1 (LEFT). Inflorescences of *Juncus balticus* subsp. *ater* (syn. = *J. arcticus* var. *balticus*). One of Idaho's common rushes from meadows and shorelines.



Fig. 2 (RIGHT). Inflorescences of *Juncus effusus* subsp. *effusus* (syn. = var. *compactus*), a European introduction with dense or open flower clusters and green sheaths. Sometimes mistaken for subsp. *pacificus*, a plant with dark brown or black sheaths found west of Idaho.

Intermountain Native Plant Summit V

Sponsored by the Boise State University Dept. of Biology and the Agricultural Research Service, Logan, UT

OPEN TO THE PUBLIC AND FREE OF CHARGE

General Sessions:

Tuesday to Thursday, March 24-26, 2009

New Ballrooms

Boise State University Student Union

Boise, Idaho

There is no registration fee, but advance pre-registration is preferred.

Please contact Dale Nielson at dale.nielson@ars.usda.gov for more information.

Poster Presentations

A limited number of poster-boards are available for display of research and plant material development work pertinent to Intermountain native plants. Please, no posters of a commercial nature. Contact Dale at dale.nielson@ars.usda.gov with a title to reserve a poster-board slot.

**Idaho Native Plant Society Financial Summary
January 1 to December 31, 2008**

INCOME		
Dues/donations/RPC proceeds		\$5,548.83
Total Income		\$5,548.83
EXPENSES		
Annual meeting		\$556.03
ERIG grants		0.00
General administrative		1,320.75
Sage Notes printing & mailing		5,177.54
Sales tax		0.00
Total Expenses		\$7,054.32
ASSETS		
Bank account		\$7,107.76
6-month CD		2,874.81
Total Assets		\$9,982.57

CHAPTER NEWS***Calypso Chapter***

Calypso Chapter does not meet during the winter months. The next regularly scheduled meeting will be held at 7:00 p.m. at the Life Care Center in Coeur d'Alene on March 4, 2009. We will be planning more field trips.

UPCOMING EVENTS

Planned field trips for 2009:

April 18, 2009 - Tubbs Hill

May 2, 2009 - Liberty Lake; will be part of Native Plant Appreciation Week

June 13, 2009 - Blossom Mountain

Kinnikinnick Chapter

The Kinnikinnick Chapter continues to serve our region through the North Idaho Native Plant Arboretum, landscaping public areas with native plants, consulting with citizens on using native plants, fighting invasive weeds through efforts of our conservation committee and participation in the Bonner County Aquatic Invasive Species Task Force, collaboration with the Bonner County Planning

Department to include native plants in the revised Land Codes, and bringing frequent field trips and monthly educational programs to the public and our membership.

Kinnikinnick chapter of the INPS is helping to sponsor a "Grow Native" campaign in Bonner County this year. The NPS will present a series of membership programs dedicated to that goal. All programs will be held on the fourth Saturday of the month beginning at 9:45 AM.

UPCOMING EVENTS

February 28, 2009 -Using Native Plants in Riparian Areas and Shoreline Buffers, presented by John Sugden of Tristate Water Quality Council

March 28, 2009 - Propagating Native Plants, presented by Kathy Hutton of Plants of the Wild Nursery

Contact Donald Childress (208) 255 7928 for program information.

Loasa Chapter

All INPS members and the public are welcome to attend Loasa's events. If interested or for further details, contact Kelvin Jones at (208) 886-7051.

Pahove Chapter**PREVIOUS EVENTS**

On **December 4, 2008** Salmon Claus migrated back upstream to officiate at our annual Holiday Party Potluck and plant-themed white elephant gift exchange. Sadly, the gold pipe cleaner Christmas tree did not make it back for some "re-gifting" this year. Rod gets to enjoy it for another year!

UPCOMING EVENTS

The Pahove Chapter hosts monthly presentations from September through April on the 3rd Thursdays at the MK Nature Center Auditorium (with few exceptions), 601 South Walnut in Boise. For more information please visit the website, <http://www.idahonativeplants.org/> or contact Susan Ziebarth [sziebarth at idfg dot idaho dot gov](mailto:sziebarth@idfg.idaho.gov).

February 11-12, 2009 – The 24th Idaho Rare Plant Conference. Volunteers are busily preparing to pull this together. We would like to acknowledge and thank Idaho Power for providing the meeting location. The theme this year is “Success Stories”. The keynote speaker, Del Wiens, will be speaking on Plant Associations of Africa.

February 12, 2009 – Identifying Buckwheats Evening Workshop, hosted by Dr Jim Smith at BSU. For more info, please visit:
<http://www.boisestate.edu/biology/idahobotforaypost.shtml>.

March 12, 2009 – Identifying Miscellaneous Plant Families Evening Workshop, hosted by Dr. Jim Smith at BSU. For details, please visit:
<http://www.boisestate.edu/biology/idahobotforaypost.shtml>.

March 19, 2009 - Meeting details to be announced.

April 16, 2009 - Plant identification workshop for Pahove members.

April 25, 2009 - Pahove Chapter Annual Earth Day Native Plant Sale. This hugely popular fundraiser gives area native plant enthusiasts an opportunity to choose from a large selection of plants, talk to knowledgeable botanists and help support the chapter. Be there early!

Sah-Wah-Be Chapter

From May through September our chapter hosts at least one Monday evening field trip and one Saturday/weekend field trip a month for our members and the general public.

PROGRAM SCHEDULE

All meetings are held at 7:00 pm in the classroom of the Idaho Museum of Natural History, ISU, unless otherwise specified. Public invited. For more information, call 208-233-0714.

PREVIOUS EVENTS

October 12, 2008 - Celebration of Life and Memorial Tree Planting. On a snowy day in the beautiful Edson Fichter Nature Area, members of our local Native Plant Society and our local Audubon chapter combined to celebrate the life of Joan Bergstrom Anderson, long-time member of SWB-

INPS and Portneuf Valley Audubon Society. Fond memories were shared and a tree identified with a plaque was planted there in her honor.

November 3, 2008 - "Plants Have Families, Too" - Dr. Karl Holte and Janet Bala, with pictures and detailed descriptions, presented the characteristics of a dozen plant families commonly found in our area to an attentive audience of about 40.

December 7, 2008 - Annual Holiday Potluck Party At The Home of Karl and Ardys Holte - There was no program; all enjoyed the ambience of the Holte home, ate a delicious dinner, and participated in great socializing. There were 62 native plant enthusiasts in attendance!

UPCOMING EVENTS

January 12, 2009 - "Edible and Medicinal Plants Growing in Pocatello and The Surrounding Area" - Long time local Native Plant Society member Marijana Dolsen will speak on this topic of interest. She will emphasize safety issues associated with collecting, eating, and using native plants for medicinal purposes. Marijana's father and maternal grandmother taught her how to survive in the wild by collecting and using a variety of plants. While a graduate student at ISU, Marijana wrote her thesis on the subject of how to use plants in the wild and herbal supplements and natural remedies in general in a safe manner.

February 2, 2009 - "Global Warming and the Migration of Plant Communities" - Dr. Matt Germino of ISU's Department of Biological Sciences will present this timely topic.

March 2, 2009 - "The History of the ISU Herbarium with Emphasis on the Life and Botanical Contributions of Ray J. Davis" - The two sons of Ray J. Davis, for whom the ISU Herbarium is named, will be presenters, plus the newly-appointed curator Rick Williams and volunteer interim curator Karl Holte.

March 21-29, 2009 - Spring Break Camping Trip - Our chapter is considering a possible week-long field trip to a southwest desert area, possibly in Arizona or eastern California.

April 6, 2009 - Sah-Wah-Be Annual Meeting - Our local chapter will have its annual meeting, location

TBA. There will be a dinner, election of officers, plus planning for field trips and events.

May 4, 2009 - A Power Point Sharing of Plant and Trip Photos. Members will show pictures of past trips and beautiful plants to whet our appetites for the 2009 field trip season. From May through September, our chapter hosts at least one Monday evening field trip and one Saturday/weekend field trip a month for our members and the general public.

White Pine Chapter

UPCOMING EVENTS

February 5, 2009 - 7:00 p.m., 1912 Center, 3rd & Adams, Moscow: Chapter Presentation, "Biological Diversity of Native Bees in Palouse Prairie," by Tim Hatten, joint program with the Palouse Prairie Foundation. Flowering plants rely on birds, bats and insects for seed dispersal and pollination services. Of the pollinators, insects, especially bees, are important because they pollinate the majority of all flowering plants. However, we know very little about the bee fauna of Palouse Prairie and considerably less about the specific plant-pollinator interactions that sustain it. A descriptive study involving USDA, University of Idaho and private sector researchers is ongoing to begin answering questions pertaining to this very important subject. Tim Hatten will present preliminary results from a three-year study that is describing the bee community found in five prairie remnants.

March 7, 2009 - 9:00 a.m., WSU Herbarium, Heald G9: Workshop "Twayblades and Fairy Slippers and Ladies' Tresses...Oh my! An Introduction to the Orchids of northern Idaho," with James Riser, PhD candidate in Plant Biology at Washington State University. Join us for an introduction to one of the most popular plant families, the orchids. With various native species blooming from spring to fall, orchids can provide the observant a botanical surprise most of the year. We'll begin with a general overview of the orchid family and then focus on orchids commonly found in our area of northern Idaho/eastern Washington. Specific emphasis will be placed on the diverse orchid assemblage of nearby Moscow Mountain. Additionally, James will provide a key to the orchids of Northern Idaho and surrounding area. There will be herbarium sheets to look at and we can practice keying orchid species.

We'll meet in the Owenby Herbarium (<http://www.wsu.edu/~wsherb>), at WSU. The herbarium is located on the ground floor of the Heald Building in room G9 (<http://www.campusmap.wsu.edu/building-list/academics/heald-eastlick.html>).

April 9, 2009 - 7:00 p.m., Neill Library, Pullman: Presentation, co-sponsored with the Palouse Prairie Foundation, "Geology of the Palouse," by Kirsten Peters of WSU. More information will be available later on the chapter website.

April 16, 2009 - Collection and Evaluation of Native Plants," presentation by Stephen Love, WSU Extension, Aberdeen, joint program with the Palouse Prairie Foundation. More information will be available later on the chapter website.

Please see White Pine chapter website at www.whitepineinps.org for current schedule of events.

Wood River Chapter

Future Activities TBD: Contact chapter president Tess O'Sullivan for updates.

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Sage Notes is published four times a year in February, May, September, and December by the Idaho Native Plant Society, incorporated since 1977, under the laws of the State of Idaho. Editor, Dylan Levy-Boyd. **Newsletter ads:** personal ads \$2; commercial ads \$5 for 1/8 page, \$8 for 1/4 page, \$15 for 1/2 page, and \$25 for full page. Ads should be sent with payment. **Submissions:** members and others are invited to submit material for publication. Articles in any form, even hand-written, are welcome, as is art work. Please provide a phone number in case there are questions. Material will not be returned. Send submissions directly to the editor, Dylan Levy-Boyd, 506 Center St. West, Kimberly, ID 83341, or <dylan at csr-inc dot com>. Submission deadlines are January 8, April 1, August 1, and November 1.

Officers: President, Janet Benoit; Vice President, Janet Bala; Secretary, Lois Rohay; Treasurer, Jody Hull. **Calypso Chapter**, P.O. Box 331, Careywood, ID 83809. President, Bob Lee; Vice President, Roland Craft; Secretary, Gloria Wurm; Treasurer, Janet Benoit; Newsletter, Phil Hruskocy. **Kinnikinnick Chapter**, 206 N. 4th Ave., PMB 162, Sandpoint, ID 83864. President, Carol Jenkins; Vice President, Jim Stern; Secretary, Konrad Dahlstrom; Treasurer, Ken Haag; Conservation, Carol Jenkins; Programs, Don Childress; Newsletter, Adrienne Lilly; Field Trips, Molly O' Reilly; Education, Nancy Fontaine. **Loasa Chapter**, 340 E 520 N, Shoshone, ID 83352. President, Kelvin Jones; Vice President, LaMar Orton; Secretary, Lois Rohay; Treasurer, Steve Paulsen. **Pahove Chapter**, PO Box 9451, Boise, ID 83707. President, Susan Ziebarth; Vice President, Karen Colson; Secretary, Karie Pappani; Treasurer, Jody Hull; Conservation, Chris Colson; Member-at-large, Cyndi Coulter, Ann DeBolt. **Sah-Wah-Be Chapter**, 146 South 17th Avenue, Pocatello, ID 83201. President, Barbara Nicholls; Vice Presidents, Penny Fazio and Pauline Havens; Secretary, Shirley Rodgers; Treasurer, Catalina Steckbauer; News, Linda Johnson and Ardys Holte; Members-at-Large, Mel Nicholls, Karl Holte, Dick Anderson; Past-President, Janet Bala. **White Pine Chapter**, PO Box 8481, Moscow, ID 83843. President, Janet Campbell & Nancy Miller; Vice President, David Pierce; Secretary, OPEN; Treasurer, Nancy Sprague; Conservation, Juanita Lichthardt. **Wood River Chapter**, PO Box 3093, Hailey, ID 83333. President, Tess O'Sullivan; Vice President, Carol Blackburn; Secretary, VACANT; Treasurer, VACANT.

The Idaho Native Plant Society (INPS) is dedicated to promoting interest in native plants and plant communities and to collecting and sharing information on all phases of the botany of native plants in Idaho, including educating the public to the values of the native flora and its habitats. In keeping with our mission, it is the intent of the INPS to educate its membership and the public about current conservation issues that affect Idaho's native flora and habitats. **Membership** is open to anyone interested in our native flora. Send dues to Jody Hull, INPS Treasurer, Box 9451, Boise, ID 83707. Website address: IdahoNativePlants.org.

Category 2009 Annual Dues

☐ Patron	\$100
☐ Sustaining	\$35
☐ Individual	\$17
☐ Household *	\$22
☐ Student	\$10
☐ Senior Citizen	\$10

Name _____
Address _____
City/State _____
Zip _____ Telephone _____
E-mail _____

Chapter affiliation? (check one)

- ☐ Calypso (Coeur d'Alene; please include \$6 newsletter dues)
☐ Kinnikinnick (Sandpoint; please include \$10 for Kinnikinnick Journal)
☐ Pahove (Boise) ☐ Sah-Wah-Be (SE Idaho)
☐ White Pine (Moscow) ☐ Loasa (Twin Falls)
☐ Wood River (Ketchum-Sun Valley)
☐ None. Those who do not live near a chapter are encouraged to join. We can put you in touch with other members in your area, and can coordinate with you on any state level activities you may wish to be involved in.

* Household memberships are allocated two votes